

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/776,453	02/12/2004	Lynn Noble	034017R015	3598	
441	441 7590 04/13/2006			EXAMINER	
SMITH, GAMBRELL & RUSSELL, LLP 1850 M STREET, N.W., SUITE 800 WASHINGTON, DC 20036			WEEKS, GLORIA R		
			ART UNIT	PAPER NUMBER	
	, -		3721		
	•		DATE MAILED: 04/13/2006		

Please find below and/or attached an Office communication concerning this application or proceeding.

U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)

1) Notice of References Cited (PTO-892)

Paper No(s)/Mail Date

2) Motice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)

4) Interview Summary (PTO-413)

Paper No(s)/Mail Date. _

5) Notice of Informal Patent Application (PTO-152)

Art Unit: 3721

DETAILED ACTION

1. This action is in response to Applicants' amendments and arguments received on September 26, 2005, all of which have been considered and acknowledged in this action.

Claim Objections

2. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding pending claim.

Claim 34 claims dependency from canceled claim 17.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 27, 28 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27 recites the limitation "said transmission" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 7-11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Klinkel et al. (USPN 4,757,668).

Regarding claims 1 and 7-11, Klinkel et al. discloses an end sealer shifting assembly comprising: a cam transmission (76) including a roller (82) in engagement with the outer peripheral edge of the cam (76) and in driving communication with a push rod assembly (80, 97-102); the push rod assembly (80, 97-102) driven by the transmission (76), the push rod assembly comprising a rod (80) with a first end received by a end seal compression jaw (43, 87) and a second end received by the roller (82); the end seal compression jaw (43, 87) in driving engagement with the push rod assembly (80, 97-102); compliance means including a spring (79, 89) biasing the jaw (43, 87) towards a contact member (40, 87). Seal

With respect to claim 15, Klinkel et al. discloses an end sealer shifting assembly comprising: a transmission (76) in driving communication with a push rod assembly (80, 97-102); an end seal compression jaw (43, 87) in driving engagement with the push rod assembly (80, 97-102); compliance means including a first spring (89) biasing the jaw (87) towards a contact member (40, 87) and a second spring (79) positioned so as to bias a rod (80)of the push rod assembly (80, 97-102) toward the transmission (76).

7. Claims 1, 2, 12, 16, 20, 21, 29, 30 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Fowler et al. (USPN 5,284,002).

Regarding claims 1, 2 and 12, Fowler et al. discloses a transmission (not shown; column 8 line 55); spring compliance means including a first and second spring (194) for compliance between an end seal compression jaw (163, 165) and a contact member (164, 166) when the jaw is driven into a compression relationship with the contact member (164, 166; a push rod

assembly including a push rod (184, 215) driven by the transmission, wherein the push rod (184) receives the end seal compression jaw (163, 165) that is compliance adjustable relative to a first end (adjacent 194; figure 9) of the push rod (184) received by the jaw (163, 165); a reception sleeve (183) receiving the push rod (184).

With respect to claims 1, 16 and 20, Fowler et al. discloses a transmission (not shown; column 8 line 55); compliance means including for compliance between an end seal compression jaw (163, 165) and a heated (174, 178, 179) second jaw (164, 166, 200, 201, 202) when the end seal compression jaw is driven into a compression relationship with the second jaw (164, 166), and a position restrictor device (183) having an interior contact portion that guides a push rod assembly (184, 215); the push rod assembly including a push rod (184, 215) driven by the transmission, wherein the push rod (184) receives the end seal compression jaw (163, 165) that is compliance adjustable relative to a first end (adjacent 194; figure 9) of the push rod (184) received by the jaw (163, 165).

In reference to claims 1, 21 and 33, Fowler et al. discloses a transmission (not shown; column 8 line 55); spring compliance means (194) for compliance between an end seal compression jaw (163, 165) and a contact member (164, 166) when the jaw (163, 165) is driven into a compression relationship with the contact member (164, 166), and a casing (183) receiving a push rod assembly (184, 215); the push rod assembly including a rods (184) driven by the transmission, wherein the push rods (184) receive the end seal compression jaw (163, 165) that is compliance adjustable relative to a first end (adjacent 194; figure 9) of the push rod (184) received by the jaw (163, 165); the push rod assembly further including a pair of rods (215) in

Art Unit: 3721

engagement with opposite ends of the jaw (163, 165), wherein the rods (215) are axially adjustable (via 184) relative to the casing (183).

With respect to claims 29, Fowler et al. discloses a method of manufacturing an end sealer shifting assembly comprising the step of: providing a transmission (not shown; column 8 line 55); providing an end seal compression jaw (163, 165) in engagement with the transmission, wherein the jaw (163, 165) slidingly receives a rod reception component (; providing compliance means (194) for jaw compliance with a contact member (164, 166) when the jaw (163, 165) is driven into compression relationship with the contact member, wherein the jaw comprises a block having a heater wire (174, 176, 178) compression surface (200, 201, 202).

Regarding claim 30, Fowler et al. discloses a method of forming an end seal in a bag dispensing system, comprising the steps of: feeding bag material (149) between an end seal compression jaw (163, 165) and a second jaw (164, 166); providing a contents (154, 157) to the bag being formed; moving the end seal compression jaw (163, 165) toward the second jaw (164, 166); and compliance means (194) allowing the moving jaw (163, 165) to conform to any variations in relative to the flush contact of the end seal compression jaw (163, 165) with the second jaw (164, 166).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

⁽a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 13 is rejected under 35 U.S.C. 102(b) as being obvious over Klinkel et al. (USPN 4,757,668).

With respect to claim 13, Klinkel et al. discloses an end sealer shifting assembly comprising: a transmission (76) in driving communication with a push rod assembly (80, 97-102); an end seal compression jaw (43, 87) (43, 87) in driving engagement with the push rod assembly (80, 97-102); compliance means including a first spring (89) and second spring (79) positioned at the push rod assembly (80, 97-102). Although neither of the spring constants are disclosed with respect to the first spring taught by Fowler et al and the second spring taught by Klinkel et al., It would have been an obvious matter of design choice to utilize springs of different spring constants, since Applicant has not disclosed that the difference in spring constants solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with springs having the same spring constant. Examiner has specifically reviewed page 46 of Applicant's specification, drawn to the first and second springs of Applicant's invention, and has been unable to determine a disclosed reason for the limitation of a first and second spring with different spring constants.

Furthermore, one of ordinary skill in the art at the time of the invention would have found it obvious to use springs of different spring constants as the first and second springs provide different functions in the end sealer shifting assembly.

10. Claims 22, 24-28, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler et al. (USPN 5,284,002) in view of Klinkel et al. (USPN 4,757,668).

In reference to claims 34, Fowler et al. discloses an end sealer shifting assembly comprising a transmission (not shown; column 8 line 55); a push rod assembly (184, 215) driven

by the transmission; an end seal compression jaw (163, 165); compliance means for jaw compliance with a contact member (164, 166), wherein the compliance means includes a first and second nested ¹springs (194). Fowler does not disclose specific limitations of the driving or transmission means of the shifting assembly, yet states the push rod assembly (184) moves the jaw in and out of engagement with a contact member (164, 166).

Klinkel et al. teaches an end sealer shifting assembly comprising: a casing (98) fixed in position relative to a sealer frame structure (57), wherein a rod (97) is received within the casing (56) and in communication with a biasing device (79) such that the rod (97) is adjustable relative to the casing (57). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the compliance means of Fowler et al. to include the fixed casing of Klinkel et al. for the purpose of guiding the rod assembly thereby allowing engagement and non-engagement positioning of the end seal compression jaw.

Regarding claims 22 and 24, Fowler et al. discloses a sealer compression jaw (164, 165); a rod assembly (184, 215) in driving engagement with the jaw (163, 165), wherein the jaw (163, 165) is in adjustable engagement with the rod assembly (184, 215) via a compliance bias spring (194); a transmission (not shown; column 8 line 55) in driving engagement with the rod assembly (184, 215); a housing block (183) which slidingly receives the push rod assembly (184); and a rod extension slidingly reveived by the jaw (163, 165). Fowler et al. does not disclose the specifics of the transmission used to drive the rod assembly.

Klinkel et al. teaches an end sealer shifting assembly comprising: a sealer compression jaw (40); a rod assembly (97, 99, 100, 101, 102) in driving engagement with the jaw (40) and a

¹ Nested: A place affording snug refuge or lodging

cam member (76), wherein the jaw (40) is biased away from the cam member (76) by a compliance spring (79). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the transmission of Fowler et al. to include the bias spring and cam of Klinkel et al., since column 7 lines 15-39 of Klinkel et al. states that such a modification is known for providing synchronous and counteroperating movement of jaws of an end sealer shifting assembly. The end sealer shifting assembly of Fowler et al. as modified by Klinkel et al. would allow the first compliance bias spring (194 - Fowler et al.) taught by Fowler et al. to bias the jaw (163, 165 – Fowler et al.) away from the cam member, as Klinkel et al. illustrates that the jaw (163, 165 – Fowler et al.; 40 – Klinkel et al.) as the jaw would move along an axis (K – Klinkel et al.) away from the cam due to contact with a second jaw (164, 166 – Fowler et al.; 43 – Klinkel et al.).

With respect to claim 25, Fowler et al. discloses an end sealer shifting assembly comprising: a sealer compression jaw (164, 165) having a heater wire compression surface (173, 175, 177); a rod assembly (184, 215) in driving engagement with the jaw (163, 165), wherein the jaw (163, 165) is in adjustable engagement with the rod assembly (184, 215) via a compliance bias spring (194); a transmission (not shown; column 8 line 55) in driving engagement with the rod assembly (184, 215); wherein the jaw slidingly receives an end of the rod slidingly reveived by the jaw (163, 165). Fowler et al. does not disclose the specifics of the transmission used to drive the rod assembly.

Klinkel et al. teaches an end sealer shifting assembly comprising: a sealer compression jaw (40); a rod assembly (97, 99, 100, 101, 102) in driving engagement with the jaw (40) and a cam member (76). It would have been obvious to one having ordinary skill in the art at the time

of the invention to modify the transmission of Fowler et al. to include the cam of Klinkel et al., since column 7 lines 15-39 of Klinkel et al. states that such a modification is known for providing synchronous and counteroperating movement of jaws of an end sealer shifting assembly.

In reference to claims 22 and 26, Fowler et al. discloses a sealer compression jaw (164, 165); a rod assembly (184, 215) in driving engagement with the jaw (163, 165), wherein the jaw (163, 165) is in adjustable engagement with the rod assembly (184, 215) via a compliance bias spring (194); a transmission (not shown; column 8 line 55) in driving engagement with the rod assembly (184, 215); a housing block (183) which slidingly receives the push rod assembly (184); and a rod extension slidingly reveived by the jaw (163, 165). Fowler et al. does not disclose the specifics of the transmission used to drive the rod assembly.

Klinkel et al. teaches an end sealer shifting assembly comprising: a sealer compression jaw (40); a rod assembly (97, 99, 100, 101, 102) in driving engagement with the jaw (40) and a cam member (76), wherein the jaw (40) is biased away from the cam member (76) by a compliance spring (79). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the transmission of Fowler et al. to include the bias spring and cam of Klinkel et al., since column 7 lines 15-39 of Klinkel et al. states that such a modification is known for providing synchronous and counteroperating movement of jaws of an end sealer shifting assembly.

With respect to claims 22, 27, 28 and 35, Fowler et al. discloses a sealer compression jaw (164, 165); a rod assembly (184, 215) in driving engagement with the jaw (163, 165), wherein the jaw (163, 165) is in adjustable engagement with the rod assembly (184, 215) via a first

nested² spring (194); a transmission (not shown; column 8 line 55) in driving engagement with the rod assembly (184, 215); a housing block (183) which slidingly receives the push rod assembly (184); and a rod extension slidingly reveived by the jaw (163, 165). Fowler et al. does not disclose the specifics of the transmission used to drive the rod assembly.

Klinkel et al. teaches an end sealer shifting assembly comprising: a sealer compression jaw (40); a rod assembly (97, 99, 100, 101, 102) in driving engagement with the jaw (40) and a cam member (76), wherein the jaw (40) is biased away from the cam member (76) by a nested compliance spring (79). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the transmission of Fowler et al. to include the second bias spring and cam of Klinkel et al., since column 7 lines 15-39 of Klinkel et al. states that such a modification is known for providing synchronous and counteroperating movement of jaws of an end sealer shifting assembly.

Although neither of the spring constants are disclosed with respect to the first spring taught by Fowler et al and the second spring taught by Klinkel et al., It would have been an obvious matter of design choice to utilize springs of different spring constants, since Applicant has not disclosed that the difference in spring constants solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with springs having the same spring constant. Examiner has specifically reviewed page 46 of Applicant's specification, drawn to the first and second springs of Applicant's invention, and has been unable to determine a disclosed reason for the limitation of a first and second spring with different spring constants.

² Nested: A place affording snug refuge or lodging

Art Unit: 3721

Allowable Subject Matter

11. Claims 3, 5, 6, 18, 19 and 32 are allowed.

Response to Arguments

12. Applicant's arguments filed March 21, 2006 have been fully considered but they are not persuasive.

Examiner would like to beg the pardon of Applicant with respect to the typographical error of excluding the element (79) with respect to the compliance means of Klinkel despite Examiner reference to the seal compression jaw (43). Thus, Examiner is confident that Applicant will agree that the compliance means (79) adequately adjusts the seal compression jaw (43) with respect to the contact member (40).

Nonetheless, Examiner has interpreted the term "seal" as the act of closing or making secure against access or passage.³ Therefore, the fact that the stripper plates of Klinkel et al. and the grippers of Fowler et al. prevent passage of the contents held within the tube/bag, the stripper plates and grippers are found to meet the limitations of a seal compression jaw.

Furthermore, the pads (173, 175, 177) in connection with the seal compression jaw of Fowler et al. are held in compliance with opposing heated contact members (174, 176, 174) via spring compliance means (214; figure 9). So, whether one of ordinary skill in the art identifies the grippers of Fowler et al. solely as the seal compression jaw, or the pads solely as the seal compression jaw, the prior art is found to disclose compliance means that allows both elements to adjust with respect to their opposing contact members.

³ Webster's Ninth New Collegiate Dictionary, Merriam-Webster Inc, Publishers, Springfield Massachusetts, copyright 1990.

Art Unit: 3721

Examiner would like to direct Applicant's attention to Lerner et al. (USPN 5,289,671) and McLean (USPN 5,439,539), both of which disclose compliance means for an end seal compression jaw.

Conclusion

13. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gloria R. Weeks whose telephone number is (571) 272-4473. The examiner can normally be reached on 8:30 am - 7:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3721

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

> Gloria R Weeks Examiner Art Unit 3721

April 6, 2006